

**Appl. No. 09/611,920**  
**Amdt. dated August 10, 2004**  
**Reply to final Office action of May 20, 2004**

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously presented) A method for accessing a directory server, the method comprising:
  - simultaneously maintaining a first plurality of connections between the directory server and a caching daemon;
  - determining if an application is requesting information from the directory server;
  - determining if the requested information is stored in the caching daemon in response to determining that the application has requested information; and
  - sending the requested information to the application.
2. (Original) The method of claim 1, wherein determining if an application is requesting information from the directory server further comprises:
  - establishing a second connection between the application and the caching daemon; and
  - receiving a request for information from the application over the second connection at the caching daemon.
3. (Original) The method of claim 1, further comprising:
  - retrieving the requested information from the caching daemon in response to determining that the caching daemon has the information stored therein.

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4. (Original) The method of claim 1, further comprising:  
retrieving the requested information from the directory server in response  
to determining that the caching daemon has not previously stored  
the information.
5. (Original) The method of claim 4, further comprising:  
storing the information retrieved from the directory server at the caching  
daemon.
6. (Previously presented) An apparatus, comprising:  
a directory server for storing information; and  
a caching daemon maintaining a plurality of connections to the directory  
server, the caching daemon configured to determine if an  
application is requesting information from the directory server,  
determine if the requested information is stored within the caching  
daemon; and send the requested information to the application.
7. (Original) The apparatus of claim 6, wherein the caching daemon is  
further adapted to establish a second connection with the application and receive  
a request for information from the application over the second connection.
8. (Original) The apparatus of claim 6, wherein the caching daemon  
comprises:  
a data cache adapted to store a subset of the information stored in the  
directory server; and  
wherein the caching daemon is further adapted to retrieve the requested  
information from the data cache in response to determining that the  
requested information is part of the subset of information stored  
therein.

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9. (Original) The apparatus of claim 6, wherein the caching daemon is further adapted to retrieve the requested information from the directory server in response to determining that the requested information is not stored within the data cache.

10. (Original) The apparatus of claim 9, wherein the caching daemon is further adapted to store the requested information retrieved from the directory server in the data cache.

11. (Original) An apparatus for accessing a directory server, the apparatus comprising:

- means for establishing a first plurality of simultaneously running connections between the directory server and a caching daemon;
- means for determining if an application is requesting information from the directory server;
- means for determining if the requested information is stored in the caching daemon in response to determining that the application has requested information; and
- means for sending the requested information to the application.

12. (Original) The method of claim 11, wherein the means for determining if an application is requesting information from the directory server further comprises:

- means for establishing a second connection between the application and the caching daemon; and
- means for receiving a request for information from the application over the second connection at the caching daemon.

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13. (Original) The method of claim 11, further comprising:  
means for retrieving the requested information from the caching daemon in response to determining that the caching daemon has the information stored therein.
14. (Original) The method of claim 11, further comprising:  
means for retrieving the requested information from the directory server in response to determining that the caching daemon has not previously stored the information.
15. (Original) The method of claim 14, further comprising:  
means for storing the information retrieved from the directory server at the caching daemon.
16. (Previously presented) A caching daemon, comprising:  
a data cache adapted to store a subset of information from a directory server; and  
a controller adapted to establish and maintain a first plurality of connections to the directory server, determine if an application is requesting information from the directory server, determining if the requested information is stored in the data cache, and send the requested information to the application.
17. (Original) The caching daemon of claim 16, wherein the controller is further adapted to establish a second connection to the application and receive a request for information from the application over the second connection.
18. (Original) The caching daemon of claim 16, wherein the controller is further adapted to retrieve the requested information from the data cache in response to determining that the data cache has the information stored therein.

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19. (Original) The caching daemon of claim 16, wherein the controller is further adapted to retrieve the requested information from the directory server in response to determining that the data cache does not have the information stored therein.

20. (Original) The caching daemon of claim 19, wherein the controller is further adapted to store the information retrieved from the directory server at the data cache.

21. (New) A method for accessing a directory server, the method comprising:  
determining if an application is requesting information from the directory server;  
determining if the requested information is stored in a lightweight directory access protocol ("LDAP") caching daemon in response to  
determining that the application has requested information; and  
sending the requested information to the application.

22. (New) The method of claim 21, further comprising:  
simultaneously maintaining a plurality of connections between the directory server and the LDAP caching daemon.

23. (New) The method of claim 21, wherein determining if an application is requesting information from the directory server further comprises:  
establishing a connection between the application and the LDAP caching daemon; and  
receiving a request for information from the application over the connection at the LDAP caching daemon.

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24. (New) The method of claim 21, further comprising:  
retrieving the requested information from the LDAP caching daemon in response to determining that the LDAP caching daemon has the information stored therein.
25. (New) The method of claim 21, further comprising:  
retrieving the requested information from the directory server in response to determining that the LDAP caching daemon has not previously stored the information.
26. (New) The method of claim 25, further comprising:  
storing the information retrieved from the directory server at the LDAP caching daemon.
27. (New) An apparatus, comprising:  
a directory server for storing information; and  
a lightweight directory access protocol ("LDAP") caching daemon, the LDAP caching daemon configured to determine if an application is requesting information from the directory server, determine if the requested information is stored within the LDAP caching daemon; and send the requested information to the application.
28. (New) The apparatus of claim 27, wherein the LDAP caching daemon is further configured to maintain a plurality of connections to the directory server.
29. (New) The apparatus of claim 27, wherein the LDAP caching daemon is further configured to establish a connection with the application and receive a request for information from the application over the connection.

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30. (New) The apparatus of claim 27, wherein the LDAP caching daemon comprises:

a data cache adapted to store a subset of the information stored in the directory server; and

wherein the LDAP caching daemon is further configured to retrieve the requested information from the data cache in response to determining that the requested information is part of the subset of information stored therein.

31. (New) The apparatus of claim 27, wherein the LDAP caching daemon is further configured to retrieve the requested information from the directory server in response to determining that the requested information is not stored within the data cache.

32. (New) The apparatus of claim 31, wherein the LDAP caching daemon is further configured to store the requested information retrieved from the directory server in the data cache.

33. (New) A lightweight directory access protocol ("LDAP") caching daemon, comprising:

a data cache that stores a subset of information from a directory server; and

a controller configured to determine if an application is requesting information from the directory server, determine if the requested information is stored in the data cache, and send the requested information to the application.

34. (New) The LDAP caching daemon of claim 33, wherein the controller is further configured to establish and maintain a first plurality of connections to the directory server.

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35. (New) The LDAP caching daemon of claim 33, wherein the controller is further configured to establish a connection to the application and receive a request for information from the application over the connection.

36. (New) The LDAP caching daemon of claim 33, wherein the controller is further configured to retrieve the requested information from the data cache if the data cache has the information stored therein.

37. (New) The LDAP caching daemon of claim 33, wherein the controller is further configured to retrieve the requested information from the directory server if the data cache does not have the information stored therein.

38. (New) The LDAP caching daemon of claim 37, wherein the controller is further configured to store the information retrieved from the directory server at the data cache.

39. (New) A method for accessing a directory server, the method comprising:  
continuously maintaining a plurality of connections between the directory server and a lightweight directory access protocol caching ("LDAP") caching daemon.  
receiving from an application a request for information from the directory server;  
using a connection of the plurality of connections to retrieve the requested information from the directory server; and  
sending the requested information to the application.

40. (New) The method of claim 39, further comprising:  
retrieving the requested information from the LDAP caching daemon if the requested information is stored in the LDAP caching daemon, and



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wherein using a connection further comprises using the connection if the requested information is not stored in the LDAP caching daemon.

41. (New) The method of claim 39, further comprising:  
storing the information retrieved from the directory server at the LDAP caching daemon.
42. (New) A lightweight directory access protocol ("LDAP") caching daemon, comprising:  
a data cache that stores a subset of information from a directory server;  
and  
a controller configured to establish and maintain a plurality of connections to a directory server, receive from an application a request for information from the directory server, use a connection of the plurality of connections to retrieve the requested information from the directory server, and send the requested information to the application.
43. (New) The LDAP caching daemon of claim 42, wherein the controller is further configured to retrieve the requested information from the data cache if the requested information is stored in the data cache, and to use the connection if the requested information is not stored in the data cache.
44. (New) The LDAP caching daemon of claim 42, wherein the controller is further configured to store the information retrieved from the directory server at the LDAP caching daemon.